

WHAT IS CLAIMED:

1. A method for reducing the plasma level of at least one of VLDL and triglycerides in a host, said method comprising:

5 ~~administering to said host an effective amount of an agent which at least reduces the amount of plasma active apoE in said host.~~

2. The method according to Claim 1, wherein said agent inhibits apoE.

3. The method according to Claim 1, wherein said agent reduces expression of apoE.

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4. The method according to Claim 1, wherein said apoE is apoE3.

5. A method of treating a host suffering from a disease condition associated with elevated plasma levels of at least one of VLDL and triglycerides, said method comprising:

15 ~~administering to said host an effective amount of an agent that at least reduces the plasma amount of active apoE in said host.~~

6. The method according to Claim 5, wherein said disease condition is a hyperlipidemia.

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7. The method according to Claim 6, wherein said hyperlipidemia is Type IV hyperlipidemia.

8. The method according to Claim 6, wherein said hyperlipidemia is Type IIb hyperlipidemia.

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9. The method according to Claim 5, wherein said agent inhibits said apoE.

10. The method according to Claim 5, wherein said agent reduces expression of said apoE.

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11. The method according to Claim 5, wherein said apoE is apoE3.

✓ 12. A non-human transgenic animal model of hyperlipidemia, wherein said non-human animal model over-expresses human apo E in a manner sufficient to have a high apoE plasma level, with the proviso that when said non-human transgenic animal model is a lagomorph, said apoE is apoE3.

13. The non-human transgenic animal model according to Claim 12, wherein said hyperlipidemia is selected from the group consisting of: (a) hypercholesterolemia; (b) hypertriglyceridemia; and (c) hypertriglyceridemia and hypercholesterolemia.

14. The non-human transgenic animal model according to Claim 13, wherein said hyperlipidemia is hypertriglyceridemia.

15 15. The non-human transgenic animal model according to Claim 14, wherein said hyperlipidemia is Type IV hyperlipidemia.

16. The non-human transgenic animal model according to Claim 13, wherein said hyperlipidemia is hypertriglyceridemia and hypercholesterolemia.

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17. The non-human transgenic animal model according to Claim 16, wherein said hyperlipidemia is Type IIb hyperlipidemia.

18. The non-human transgenic animal model according to Claim 12, wherein said animal model does not express endogenous apolipoprotein E.

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19. The non-human transgenic animal model according to Claim 18, wherein said animal is a mouse.

✓ 20. A rodent transgenic animal model of hypertriglyceridemia that over-expresses human apolipoprotein E and does not express endogenous apolipoprotein E.

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21. The transgenic animal model according to Claim 20, wherein said rodent is a mouse.

22. The transgenic animal model according to Claim 21, wherein said mouse has
5 plasma human apolipoprotein E levels in excess of about 25 mg/dl.

23. The transgenic animal model according to Claim 20, wherein said hypertriglyceridemia is Type IV hyperlipidemia.

✓ 10 24. A lagomorph transgenic animal model of hyperlipidemia that over-expresses human apolipoprotein E3.

25. The transgenic animal model according to Claim 24, wherein said animal is a rabbit.

15 26. The transgenic animal model according to Claim 24, wherein said hyperlipidemia is Type IIb hyperlipidemia.

20 27. The transgenic animal model according to Claim 24, wherein said rabbit has plasma human apolipoprotein E3 levels in excess of about 15 mg/dl.

28. A method for screening a compound to determine its effectiveness in treating a disease condition associated with elevated plasma levels of at least one of VLDL and triglycerides, said method comprising:

25 administering a candidate compound to a non-human animal model according to Claim 12; and
determining the effect of said candidate compound on said non-human animal model.

30 29. The method according to Claim 28, wherein said disease condition is hyperlipidemia.

30. The method according to Claim 29, wherein said hyperlipidemia is hypertriglyceridemia.

31. The method according to Claim 30, wherein said hyperlipidemia is Type IV hyperlipidemia.

32. The method according to Claim 29, wherein said hyperlipidemia is hypertriglyceridemia and hypercholesterolemia.

33. The method according to Claim 32, wherein said hyperlipidemia is Type IIb hyperlipidemia.

34. A therapeutic compound identified using the screening method of Claim 28.

35. A pharmaceutical composition of the therapeutic compound of Claim 34.